



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,923	04/30/2001	Richard A. Dermer	07844-444001	3661

21876 7590 06/09/2005

FISH & RICHARDSON P.C.  
P.O. Box 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER
----------

COURTENAY III, ST JOHN

ART UNIT	PAPER NUMBER
----------	--------------

2194

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/846,923

Applicant(s)

DERMER, RICHARD A.

Examiner

St. John Courtenay III

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-32 is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
ST. JOHN COURTENAY III  
PRIMARY EXAMINER

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **Detailed Action**

Responsive to newly revised PTO Group 2100 examination guidelines, rejections of claims 1-16 are set forth below under 35 U.S.C. §101.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The language of independent claims 1, 10, and 14 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Independent claims 1, 10, and 14 do not appear to require any computer hardware to implement the claimed invention. These claims appear to define the metes and bounds of an invention comprised of software alone. Software alone, without a machine, is incapable of transforming any physical subject matter by chemical, electrical, or mechanical acts.

If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. In re Schrader, 22 F.3d 290 at 294-95, 30 USPQ2d 1455 at 1458-59 (Fed. Cir. 1994).

Transformation of data by a machine constitutes statutory subject matter if the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106.

State Street required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, State Street does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. State Street, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claims 1, 10, and 14 and associated dependent claims 2-9, 11-13, and 15, 16, are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of software alone without claiming associated computer hardware required for execution, is not supported by either a specific and substantial asserted utility (i.e., transformation of data) or a well established utility (i.e., a practical application).

**35 U.S.C. § 112, 1<sup>st</sup> paragraph**

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established

utility for the reasons set forth above, one skilled in the art would not know how to use the claimed invention.

**35 U.S.C. § 112, 2<sup>nd</sup> paragraph**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are computer hardware necessary to execute the claimed software and render the invention operative.

**Indication of Allowable Subject Matter:**

Claims 17-32 appear to be allowable over the prior art of record, subject to the results of a final search.

During examination, the claims must be interpreted as broadly as their terms reasonably allow. The pending claims must be "given the broadest reasonable interpretation consistent with the specification." In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

The words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d1320, 1322 (Fed. Cir. 1989).

In particular, with respect to software components, the scope of a claimed software component cannot be reasonably ascertained merely from a moniker, or mnemonic name assigned by the programmer to the component. The Examiner must look to the specification for a definition.

In the instant application, the claimed "assembly manager" and "assembly data-structure" have been considered by the Examiner as definitions.

Clear definitions for the claimed "assembly manager" and "assembly data-structure" are provided on pages 6, 7, 9, and 10 of the instant specification:

[definition page 6, lines 8-12] **Assembly manager 204** performs the run-time assembly of components according to information in **assembly data-structure 205**. Using information in **assembly data-structure 205**, **assembly manager** performs late-binding of components to a component-based application. This allows the component-based application to be customized by inserting filtering components in the application or replacing components upon execution.

[definition page 6, lines 13-17] In one implementation, the **assembly data-structure** is generated in the Extensible Markup Language (XML) and is referred to as an assembly schema. One or more **assembly data-structures** are stored in an assembly schema database 206. Each assembly data-structure 205 uses a metadata syntax to describe the components **assembly manager 204** loads to perform a service and the relationship each component assumes in this

process. [definition cont'd page 6, lines 25-26] The **assembly data structure 205** also includes metadata describing interfaces that components use to communicate information with each other.

[definition cont'd page 7, lines 27-31] The **assembly manager 204** is designed to work with a variety of object models, including, for example, Component Object Model (COM) as specified by Microsoft, Corporation of Redmond, Washington, Common Object Request Broker Architecture (CORBA) a public object-model specified by Object Management Group (OMG), and Bravo Interface Builder (BIB) as specified by Adobe Systems Incorporated.

[definition cont'd page 9, lines 28-31] The **assembly manager** receives the string and determines which **assembly data-structure** should be loaded. In some cases, the **assembly manager** receives a request directly from the application for an **assembly data-structure** having the proper components. In the former case, the **assembly manager** locates and loads the **assembly data-structure** created for ... [cont'd page 10, lines 1-10] processing the requested service (404). If there are other components already loaded, the component-based application can provide to the **assembly manager** the interfaces already loaded and in use by other components (406), subject to the cardinality attributes of the components and interfaces. The **assembly manager** connects the interfaces already loaded with interfaces of the components in the **assembly data-structure** (408). Once the new components are properly loaded, the **assembly manager** provides the component-based application with an entry point to execute the components and perform the requested service (410). In an alternative implementation, the components are executed and the results are passed by the **assembly manager** to the component-based application that makes the request.

When the claims are properly constructed by applying the above definitions, claims 17-32 are deemed allowable for at least the following reasons:

**As per independent claim 17:**

The prior art of record does not teach, nor fairly suggest, the combined use of group components, an **assembly manager**, an assembly, the assembly having a name and an assembly definition having metadata information identifying each component in the group of components and any further interfaces implemented by or used by any of the components, whereby the assembly definition is configured to be loaded into the **assembly manager**, operatively coupled as claimed.

**As per independent claim 26:**

The prior art of record does not teach, nor fairly suggest, accessing an assembly definition, loading each component identified in the **assembly data-structure**, and connecting an interface according to meta-data information, as claimed.

**As per independent claim 30:**

The prior art of record does not teach, nor fairly suggest, calling an **assembly manager** with a service request, and accessing an assembly capable of performing the service, the assembly including components and interfaces specified in an assembly definition and loaded by the **assembly manager**, as claimed.

Application/Control Number:  
09/846,923  
Art Unit: 2194

Page 8

**How to Contact the Examiner:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to St. John Courtenay III, whose telephone number is 571-272-3761. A voice mail service is also available at this number. The Examiner can normally be reached on Monday - Friday, 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-AI who can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**All responses sent by U.S. Mail should be mailed to:**

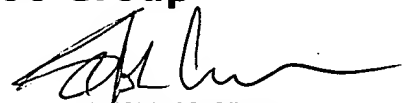
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

---

**PTO CENTRAL FAX NUMBER:  
703-872-9306**

---

- Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: (571) 272-2100.**

  
**ST. JOHN COURTENAY III  
PRIMARY EXAMINER**